

<<数字信号处理>>

图书基本信息

书名：<<数字信号处理>>

13位ISBN编号：9789812382160

10位ISBN编号：981238216X

出版时间：2003-12

出版时间：Penguin

作者：Sundararajan, D.

页数：278

版权说明：本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问：<http://www.tushu007.com>

## 内容概要

This concise and clear text is intended for a senior undergraduate and graduate level, one-semester course on digital signal processing. Emphasis on the use of the discrete Fourier transform (the heart of practical digital signal processing) and comprehensive coverage of the design of commonly used digital filters are the key features of the book. The large number of visual aids such as figures, flow graphs, and tables makes the mathematical topic easy to learn. The numerous examples and the set of Matlab programs (a supplement to the book) for the design of optimal equiripple FIR digital filters help greatly in understanding the theory and algorithms. Solution Manual to the questions (as a separate volume) is available to instructors or lecturers.

## 书籍目录

Preface  
Chapter 1 Introduction 1.1 The Organization of this Book  
Chapter 2 Discrete Signals 2.1 Signal Classifications 2.2 Basic Signals 2.3 Signal Operations 2.4 Summary  
Chapter 3 Time-Domain Analysis of LTI Discrete Systems 3.1 Linear Time-Invariant Discrete Systems 3.2 Difference Equation Model 3.3 Convolution-Summation Model 3.4 System Response 3.5 System Stability 3.6 Computational Structures for Discrete Systems 3.7 Summary  
Chapter 4 The Discrete Fourier Transform 4.1 The Fourier Series 4.2 The Discrete Fourier Transform 4.3 Properties of the DFT 4.4 Summary  
Chapter 5 The Discrete-Time Fourier Transform 5.1 The Discrete-Time Fourier Transform 5.2 Fundamentals of FIR Filter Design Using the DTFT 5.3 Approximation of the DTFT by the DFT 5.4 Summary  
Chapter 6 The z-Transform 6.1 The DFT and the z-Transform 6.2 The z-Transform 6.3 Properties of the z-Transform 6.4 The Inverse z-Transform 6.5 Summary  
Chapter 7 Frequency-Domain Analysis of Discrete Systems 7.1 Transfer Function Model 7.2 Frequency Response 7.3 System Stability 7.4 Computing the Steady-State Response Using the DFT 7.5 Summary  
Chapter 8 Digital Filters-Characterization and Realization 8.1 Characterization 8.2 Realization 8.3 Summary  
Chapter 9 Linear-Phase FIR Filters-I 9.1 Linear Phase Response 9.2 Linear-Phase FIR Filter Design Using the DTFT 9.3 Implementation of FIR Filters Using Fast Convolution 9.4 Summary  
Chapter 10 Linear-Phase FIR Filters-II 10.1 Optimum Equiripple Linear-Phase FIR Filter Design 10.2 Some Special Applications of FIR Filters 10.3 Summary  
Chapter 11 IIR Filters  
Chapter 12 COmputation of the DFT  
Chapter 13 Quantization Effects  
Appendix A Analog Filter Design  
Appendix B Sampling and Reconstruction of Signals  
Solutions to Selected Exercises  
Index

版权说明

本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问:<http://www.tushu007.com>